

Marc HUGER
Full Professor, ATHOR Coordinator,
marc.huger@unilim.fr
Daria BARSUK, ATHOR Project Manager,
daria.barsuk@unilim.fr
UMR CNRS 7315 - SPCTS - Limoges - France

Limoges, December 22nd 2017

Deliverable D 6.4

The website is created. It describes the project and gives the news. Each ESR position is described. All internet documents linked to the project are put on the cloud of the project.

Introduction

Deliverable D7.1 “Project website” describes the key points of design, execution, content, usage, and communication strategy behind the internet platform of the ATHOR project. The URL of the website is www.etn-athor.eu and it has been operating since June 2017. The website is hosted by Limoges University server (coordinating university), developed using a WordPress 4.8.1 tool and maintained by the dedicated team (Sebastian Larue, Guy Oum, Daria Barsuk) and it will be updated regularly. The website’s purpose is to increase project visibility and to communicate main targets of the project to the research and industrial communities and wide public.

The content of the website is supposed to be fed by:

- Consortium members by sharing news and achievements and publications in their field of research;
- ESRs by creating their personal blogs and articles;
- Twin projects (ex.: 3D-CERAM. Grant 765445)
- News from H2020 and EC websites via “feeds”
- Social media posts (twitter, facebook, youtube)

The points above are still in the process of development and optimization, and will advance together with the reception of the lacking elements (students recruitment, projects startups etc.).

Internal communication platform within the consortium - “Ucloud” - is directly linked to the website and is hosted by Limoges University server. The quota available at present is 20 Gb but is extensible if necessary. Ucloud platform is divided into multiple directories, offering common working space according to the subject (ex.: “Industrial Advisory Board”,

“ESRs working space”, “Deliverables” etc.). Each project member has his/her own access to this shared workspace and a possibility to consult, download/upload and modify the content. The archivation of Ucloud is performed by the Limoges University server, the history of the content can be traced back to up to three months.

Public content

ATHOR website is accessible at www.etn-athor.eu.

It was developed to act as an information hub about the project’s aims, goals, activities and results. Its sections provides the following content:

- a) Introduction and industrial context
- b) Project overview and programmed training
- c) Description of academic and industrial partners and their localization
- d) Information related to ESR’s research topics in the context of the project and project leaders
- e) News, press releases, publications
- f) Information about vacant positions
- g) Contacts

There have been planned a release of several dissemination media productions, related to ATHOR to describe the activity of the project through videos, cartoons/animations. First steps have been taken in this direction and an agreement established with the dedicated multimedia unit (CanalSup) of the Limoges University. This content will also be disposed in a new section of the website.

Landing page of the website (see Fig.1) is designated to familiarize the visitor with the project and provides only very general information, such as project’s logo, the scope of research, funding, main actors, role of FIRE ([Federation for International Refractory Research and Education](#)) community and information about the recruited Ph.D. students.

From this page, visitor can access other sections of the website, listed in the horizontal menu.

On its right, the page also displays all the related news and events, related to the project.

ATHOR Refractory Linings
Advanced THermomechanical multiscale mOdelling of Refractory linings

Industrial European context

MULTISCALE MODELLING AND EXPERIMENTATION

Fig.1. Landing page of ATHOR website

Project page describes planned activities of the project more in details, making an accent of its networking and training of the generation of highly skilled specialists through active exchange between partners and transfer of knowledge between industry and academy (Fig.2).

Project Overview

The ATHOR (Advanced Thermomechanical multiscale mOdeling of Refractory linings) network is firstly dedicated to train researchers in multi engineering required fields for a better understanding of thermomechanical behaviour of refractory linings used in I&S applications. The project will cover all the main features of thermomechanical analysis of refractory linings including material characterization, impact of corrosion on thermomechanical properties, thermal shock resistance, modelling of non-linear thermomechanical behaviours, instrumentation of industrial devices and measurement in operation conditions. The 15 ESRs recruited will take advantage of the most sophisticated numerical tools to model, design and predict the life of different lining configurations in critical operational conditions. Being trained in scientific, technical and soft skills, these ESRs are the next generation of highly employable scientists and engineers in the refractory sector and related areas.

New testing methods and models will be developed to address the Scientific/Technological (S/T) challenges for these applications and help to design better performing refractory materials and linings. The research training is implemented through strong relationships between academia and industrial partners across the EU. The ATHOR network is structured to take full advantage of intensive cooperation between academia (AGH, MUL, RWTH, UMINHO, UNILIM, UORL), raw material suppliers (ALTEO, IMERYS), refractory producers (MAGNESITA, PYROTEK, RHI, ST-GOBAIN) and consumers (TATASTEEL) with a direct link to the FIRE federation. This cross-disciplinary approach throughout the ATHOR value chain will dramatically increase the transfer of scientific knowledge to the refractory-consuming industries in the EU, ensuring their progress on social, environmental and economic aspects. The main scientific objective of the ATHOR network is to adapt and develop the most advanced modelling strategies and experimental technologies to the field of refractory to be able to perform reliable computations and measurement in the temperature range of the applications of these materials. ATHOR targets the development of high-end engineering technologies in the fields of material's science and numerical simulations to give a substantial contribution through the design of more robust and reliable refractory linings. Ultimately, it represents a reduction of the refractory costs, an increase of the equipment's availability and an enhanced process control. In addition to the great energy savings that meets the industrial partner's interests, the ATHOR project contributes also to tackling environmental issues.

Relevance of the ATHOR Training Program

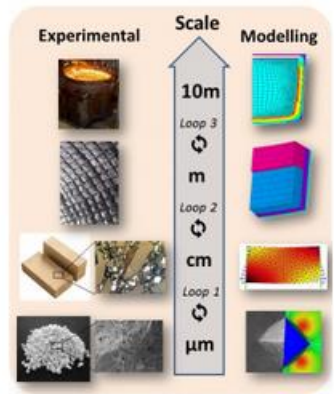
Today, the refractory companies experience many challenges (e.g. raw material prices, environmental related restrictions) that hinder the continuous development of innovative approaches in material design, process and product functionality. Their competitiveness and sustainability are directly related to the availability of industrial oriented well educated young engineers who see refractory materials as multifunctional advanced ceramics. Therefore, ATHOR provides unique training of 15 ESRs for 540 researcher months. A selection of Network-Wide Events and Activities dedicated to training, mobility, sustainable recruitment and transfer of knowledge offered to the ESRs is listed below.

Selection of Network-Wide Training Events and Activities in 5 countries:

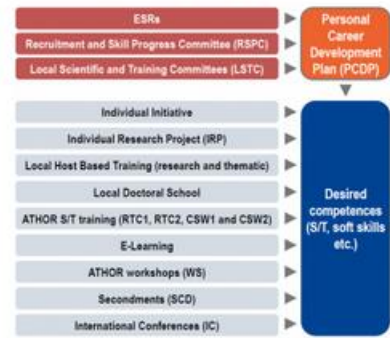
- Research Training Courses (RTC) on Refractory Materials, Theoretical Basics and Modelling
- Complementary Research and Entrepreneur Skills (CSW)
- Young Researchers Competitions
- International Conferences: Aachen and UNITECR
- Secondments
- Site visits



ATHOR value chain global overview



ATHOR Multiscale approach



ATHOR Training Program

Fig.2. Project page of ATHOR website

Partners page lists all project partners and their locations indicated on the map below. By clicking on each partner's icon visitor will be redirected on its homepage (Fig.3).

6 Academic Poles:

- University of Limoges (France)
- University of Krakow (Poland)
- University of Aachen (Germany)
- University of Leoben (Austria)
- University of Orléans (France)
- University of Minho (Portugal)

8 Industrial Partners:

- Altéo Alumina – Gardanne (France)
- Imerys Refractory Minerals – Villach (Austria)
- RHI-Magnesita (Austria)
- Pyrotek Scandinavia AB – Ed (Sweden)
- Saint-Gobain – Cavailon (France)
- TataSteel – IJmuiden (Netherlands)
- FIRE – Montréal (Canada)

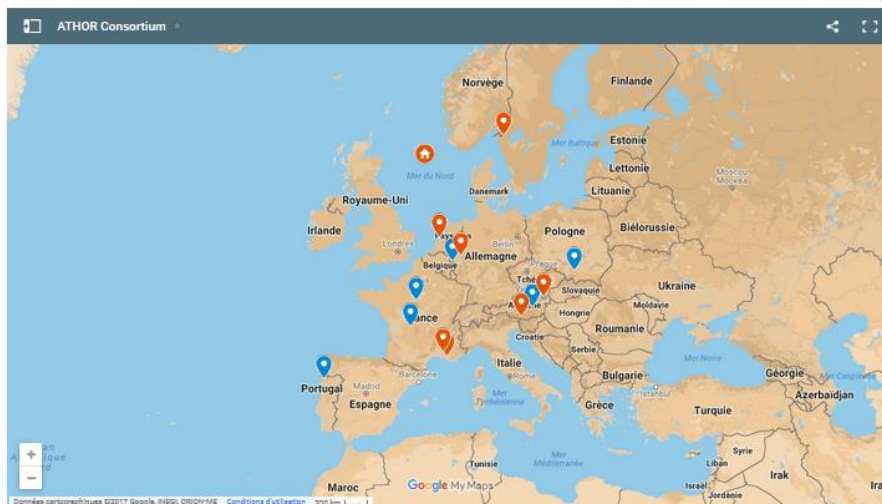


Fig.3. Partners page of ATHOR website

Team page (Fig. 4) structures information about:

- Management unit of the project
- ESRs
- ESR supervisors and academic and industrial mentors

Behind each photograph, a profile of the researcher is available.

ATHOR Refractory linings, EU MSCA ETN

Home Project Partners Team Jobs Contact

Management Team

Prof. Marc HUGER General Coordinator [mail](#) | Dr. Eric BLOND Deputy Coordinator [mail](#) | Dr. Daria BARSUK Project Manager [mail](#)

ESR1 - Thermo-physical properties characterisation of insulating materials and joints
 Leading Institution : University of Limoges- SPCTS

Diana VITIELLO PhD Student [mail](#) | Prof. David SMITH SPCTS Supervisor [mail](#) | Dr. Benoît NAIT-ALI SPCTS Co-Supervisor [mail](#)
 Dr. Nicolas TESSIER-DOYEN SPCTS Co-Supervisor [mail](#)

Contributing Institution: University of Aachen - GHI, University of Minho - ISISE

Dr. Thorsten TONNESEN GHI Secondment Mentor [mail](#) | Dr. Luis LAIM ISISE Secondment Mentor [mail](#)

Industrial Partners: RHI - Leoben

Dr. Ulrich MARSCHALL RHI Mentor [mail](#)

Fig.4. Fragment of a team page of ATHOR website

Jobs page has served to advertise initially available 15 ESR and 1 Project Manager position as displayed as in Fig.5. Currently, this page is under construction since only 3 Ph.D. positions are left vacant and related recruitment will be proceeded by the MINHO partner University in agreement with the organisation’s local requirements. Simultaneous advertisement regarding the left available positions will appear on the website.

Fig.5. Jobs page of ATHOR website

Contacts page communicates the persons to address in case of inquiries or any subject related to the project’s activity (Fig. 6).

<p>Prof. Marc HUGER General Coordinator of ATHOR Laboratoire Science des Procédés Céramiques et de Traitements de Surface UMR CNRS 7315 – SPCTS CENTRE EUROPÉEN de la CERAMIQUE (CEC) 12 rue Atlantis 87068 LIMOGES Cedex – France Tel: +33 5 87 50 25 56 marc.huger@unilim.fr www.unilim.fr/pages_perso/marc.huger</p>	<p>Dr. Eric BLOND Deputy Coordinator Polytech Orléans (Site Léonard de Vinci) Laboratoire PRISME (EA 4229) 8 rue Léonard de Vinci 45072 Orléans Cedex 2 – France Tel: +33 2 38 49 43 58 eric.blond@univ-orleans.fr www.researchgate.net/profile/Eric_Blond</p>	<p>Dr. Eng. Dominika MADEJ Chair of Recruitment and Skill Progress Committee (RSPC) AGH University of Science and Technology Faculty of Materials Science and Ceramics Department of Ceramics and refractories al. A. Mickiewicza 30 30-059 Krakow, Poland Tel: +48 12 617 40 04 dmadej@agh.edu.pl www.researchgate.net/profile/Dominika_Madej</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Fig.6. Contacts page of ATHOR website

Conclusions

ATHOR website is an online tool to communicate the results and events in the framework of the project. It will be regularly updated and improved by project members (project manager, ESRs and informatics support university team) in order to provide the latest news, relevant results and breakthroughs. It will remain also available for 3 years after the end of the project. The simplicity of navigation and design allows all categories of web users to easily access the needed information and to contact projects representatives. The internal Ucloud collaboration space <https://ucloud.unilim.fr> is created to respond to the project needs in terms of exchange of big amount of data and to stock produced results and documentation in numerical formats. This space is password protected and the security of this platform is guaranteed by the Informatics Systems Direction (DSI) of Limoges University.

** ATHOR website was primarily developed with efforts of local SPCTS/UNILIM researcher Guy OUM and with a support of informatics unit of Limoges University. Project manager Daria Barsuk has joined the project in November 2017 and is emerging in the process of website maintenance and update. The recruited ESRs who join the SPCTS laboratory in January 2018 will also actively take part in the “life” of the website and related blogging.*